

Exhibit

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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

BRAUN GMBH,)
v.)
RAYOVAC CORPORATION,)
Plaintiff,)
Defendant.)
v.)
) Civil Action No. 03-1248-WGY
)
)
)
)
)

THIRD EXPERT REPORT OF SAMUEL R. PHILLIPS, PE

1. I am an independent consulting engineer, serving over 120 clients. I have been retained as an expert in this case by Rayovac Corporation ("Rayovac") to opine as to whether certain of Braun Gmbh's patents are invalid. Specifically, I have been asked to respond to Dr. Nayfeh's rebuttal of my First Expert Report.

I. BACKGROUND AND QUALIFICATIONS

2. My background and qualifications are set forth at Tab 1 of my First Expert Report.

3. My compensation is \$425.00/hour through FTI/Teklicon.

II. SCOPE OF STUDY AND OPINION

**A. DOCUMENTS AND INFORMATION CONSIDERED IN
FORMING OPINIONS**

4. The following opinions and analyses are based upon a review of the information listed at Tab 3 of my First Expert Report.

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5. Additional information I considered in responding to certain opinions expressed by Dr. Nayfeh is listed at Tab 1.

B. SUMMARY OF OPINIONS

6. After my review of Dr. Nayfeh's second expert report, it remains my opinion that all of the asserted claims of the '556 patent are invalid for anticipation, obviousness, indefiniteness, lack of an adequate written description, improper introduction of new matter, failure to join an inventor, and/or failure to disclose the best mode.

7. After my review of Dr. Nayfeh's second expert report, it remains my opinion that all of the asserted claims of the '328 patent are invalid for anticipation, obviousness, indefiniteness, lack of an adequate written description, improper introduction of new matter, failure to join an inventor, and/or failure to disclose the best mode.

8. At trial, I anticipate giving a basic tutorial that will assist the Court and/or the jury in understanding the technology applicable to the patents in suit and the prior art.

C. LEVEL OF ORDINARY SKILL IN THE ART

9. Dr. Nayfeh states that he does not believe that there is a dispute between the parties as to the level of ordinary skill in the art. (Second Nayfeh Report, at 13 n. 1.) It is, however, not clear to me that the parties are in agreement.

10. It remains my opinion that the ordinary artisan would have possessed at least 3-5 years of relevant industry experience following his or her education. To the

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extent that Dr. Nayfeh's use of a "few years" means the same thing as 3-5 years, there is no disagreement on that score.

11. However, it does appear that the parties disagree as to what constitutes the "art." In his response to my opinion regarding indefiniteness, Dr. Nayfeh at least cites to Braun's arguments during prosecution that the Lee and Schinn Patents constitute non-analogous art. By citing Braun's arguments, it appears that Dr. Nayfeh believes that the arguments were correct. If that is the case, I disagree.

12. As explained at Paragraphs 19-25 of my First Expert Report, it is my opinion that the "art" of the patents-in-suit is not limited to cleaning systems for shavers. Rather, the "art" is cleaning systems in general, and there is a broad range of prior art cleaning systems such as the Lee and Schinn Patents that are not non-analogous art.¹ If, however, Dr. Nayfeh agrees with me as to what constitutes the relevant "art," then there is no dispute between the parties.

III. DETAILED CONCLUSIONS FOR THE PATENTS-IN-SUIT

A. INDEFINITENESS

13. I understand that a claim term is indefinite if it does not reasonably apprise those of skill in the art of its scope. I further understand that the Court tentatively construed the claim elements "a cradle structure adapted to receive therein the shaving head" and "a cradle structure adapted to receive therein the shaving head" to both mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." It remains my opinion that the "cradle structure"

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elements, as tentatively construed by the Court, do not reasonably apprise an ordinary artisan as to their scope.

14. Dr. Nayfeh states that he disagrees with me that the Court's tentative claim construction does not reasonably apprise an ordinary artisan as to claim scope. Rather than analyzing the Court's tentative construction, however, Dr. Nayfeh then looks to the McGraw-Hill Dictionary of Scientific and Technical Terms to opine: "[O]ne of ordinary skill in the art would recognize that the claimed cradle structure was a framework for supporting an object -- in this case, a framework adapted for supporting and receiving the shaving head of a dry shaving apparatus." (Second Nayfeh Report, at 22.) I disagree with Dr. Nayfeh's redefinition of the Court's tentative construction as follows.

15. First, the Court's tentative construction says nothing about a "framework." Rather, the Court's tentative construction only requires a "structure." It is true that frameworks are structures, but not all structures are frameworks.

16. Second, the Court's tentative construction requires only that the "structure" be adapted to support *or* receive a shaving head of a shaving apparatus. Dr. Nayfeh redefines the Court's tentative claim construction so that the "structure" (presumably the framework) must support and receive a shaving head of a shaving apparatus.

17. Dr. Nayfeh appears to have decided to craft his own "cradle structure" definition instead analyzing the Court's tentative claim construction. Thus, even Dr.

¹ Even assuming that the "art" were more limited, the opinions expressed in my First Expert Report

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Nayfeh seems to acknowledge that the Court's tentative claim construction creates more questions than it answers.

18. Dr. Nayfeh next opines that "the prosecution histories of the patents-in-suit are not at odds with the Court's construction or the ordinary artisan's understanding of the patents." I do not know what Dr. Nayfeh means by the "ordinary artisan's understanding of the patents" if the ordinary artisan's understanding differs from the Court's tentative construction of the "cradle structure" limitations.² I, however, have focused on the Court's tentative claim construction, and it remains my opinion that the prosecution histories of the patents-in-suit cannot be reconciled with the Court's tentative claim construction.

19. First, Dr. Nayfeh's discussion of the Lee Patent does not alter my opinion. Dr. Nayfeh argues that Braun "distinguished the Lee Patent as nonanalogous art," but Dr. Nayfeh appears to have misread the prosecution history. Braun did argue that the Lee Patent was non-analogous art, and, as discussed above, I disagree. The Examiner, however, never stated that he agreed with Braun. In fact, the Examiner continued to cite cleaning systems for items other than shavers following his citation of the Lee Patent, the most obvious example being the Schinn Patent. The Examiner thus did not appear to be persuaded by Braun's argument, and I am not either.

20. Dr. Nayfeh also points to the preamble of the '556 patent to argue that the "cradle structure" limitation, as tentatively construed by the Court, is not indefinite. Not

would not change.

² To the extent that Dr. Nayfeh is permitted to explain what the understanding is, I reserve the right to analyze Dr. Nayfeh's explanation and respond to it.

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only is this illogical, it distorts what actually occurred during prosecution. As Dr. Nayfeh appears to acknowledge, Braun never attempted to distinguish the Lee Patent on the ground that the Lee Patent was not “a cleaning device for cleaning a shaving head of a dry shaving apparatus.” Instead, Braun specifically argued: “The specification makes it quite clear that ‘a cradle adapted to receive therein a shaving head’ is not an open basin into which the shaving apparatus can be tossed without any means to designed to particularly receive and/or cradle the shaving head.” (Ex. 19, at B0000095.)

21. As stated in my First Expert Report, the open basin in the Lee Patent -- called a “receptacle” -- is obviously (1) a structure and (2) able to receive or retain fluid or both. The “receptacle” in Figure 5 of the Lee Patent also clearly could receive or support a shaving head of a shaving apparatus if appropriately sized.³ It thus remains my opinion that Braun’s clear disclaimer of the receptacle in the Lee Patent could not be reconciled with the Court’s tentative claim construction by one of ordinary skill in the art.

22. Second, Dr. Nayfeh’s discussion of the Schinn Patent also does not alter my opinion. Dr. Nayfeh argues that Braun “objected the Lee Patent as nonanalogous art.” Braun did argue that the Schinn Patent was non-analogous art, and, as discussed above, I disagree. The Examiner, however, never stated that he agreed with Braun. In fact, the Examiner continued to cite cleaning systems for items other than shavers following his citation of the Schinn Patent including a prior art reference related to cleaning. (Ex. 19, at B000098-100.) The Examiner thus did not appear to be persuaded by Braun’s argument, and I am not either.

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23. Dr. Nayfeh then argues: "In addition, Braun distinguished the Schinn paint equipment cleaner on the ground that the patent did not contain a cradle adapted to receive a shaving head. See id. at B000103. The Schinn device's hooks and wire baskets are adapted to receive paint equipment. See id." The Schinn device could have just as easily incorporated a structure to receive a shaving head. Dr. Nayfeh's argument regarding Braun's disclaimer proves my point that the Court's tentative construction is indefinite.

24. As stated in my First Expert Report, the basket in the Schinn Patent is obviously (1) a structure and (2) able to receive or retain fluid or both. The basket also clearly could receive or support a shaving head of a shaving apparatus. Braun's ultrasonic cleaner appears to use the type of basket used in the Schinn Patent. (Ex. 17, Hoeser Dep., at 31-33.) Mr. Hoeser, in fact, agreed that the basket in Braun's ultrasonic cleaner is a "cradle." (Ex. 17, Hoeser Dep., at 32S.) It thus remains my opinion that Braun's clear disclaimer of the basket in the Schinn Patent could not be reconciled with the Court's tentative claim construction by one of ordinary skill in the art.

25. Third, Dr. Nayfeh's discussion of the Cunningham Patent does not alter my opinion. Dr. Nayfeh states: "As Braun explained in the prosecution history, the Cunningham patent does not teach a cradle to support an object into which cleaning fluid is feed that is above the fluid level of the cleaning fluid in the cleaning fluid container." (Second Nayfeh Report, at 26.) In so doing, Dr. Nayfeh has paraphrased the prosecution history.

³ Insofar as the receptacle of the Lee Patent is not drawn to scale, one of ordinary skill in the art

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26. Braun actually told the Examiner: "Cunningham does not teach a cradle structure adapted to receive an object to be cleaned and to which cleaning fluid is fed arranged above a fluid level of the cleaning fluid in a cleaning fluid container, as claimed." (Ex. 12, at B000335.) As stated in my First Expert Report, the basket in the Cunningham Patent is "a cradle structure adapted to receive an object to be cleaned," as construed by the Court. The basket obviously is (1) a structure and (2) able to receive or retain fluid or both. The basket also clearly could receive or support a shaving head of a shaving apparatus. Braun's ultrasonic cleaner appears to use the type of basket used in the Schinn Patent. (Ex. 17, Hoeser Dep., at 31-33.) Mr. Hoeser, in fact, agreed that the basket in Braun's ultrasonic cleaner is a "cradle." (Ex. 17, Hoeser Dep., at 32S.) The basket in the Cunningham patent is lowered into the cleaning fluid container, thereby feeding the fluid. It thus remains my opinion that Braun's clear disclaimer of the basket in the Cunningham Patent could not be reconciled with the Court's tentative claim construction by one of ordinary skill in the art.

B. WRITTEN DESCRIPTION

27. I understand that, in order for a patent claim to be valid, the written description in the specification must clearly allow one of ordinary skill in the art to recognize that the inventor invented what is claimed. I further understand that there can be no written description for what the inventor did not conceive. It remains my opinion that there is no written description in the patents in suit for the "cradle structure" limitations, as construed by the Court. More particularly, there is no written description

would size it appropriately for the application when practicing the Lee Patent.

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in either patent specification which would allow one of ordinary skill in the art to recognize that Gebhard Braun (or Dr. Dietrich Pahl) invented a structure adapted to support or receive a shaving head of shaving apparatus that receives, but does not retain fluid.

28. Dr. Nayfeh appears to acknowledge that the specifications for the patents in suit only describe a "cradle structure" that both receives and retains fluid. Dr. Nayfeh states:

In the preferred embodiment, for example, the cradle is able to receive and retain fluid because the outlet port of the cradle is dimensioned such that the inflow of cleaning fluid from the pump is greater than the outflow of cleaning fluid. However, it would be clear to one of ordinary skill in the art that if the outlet port of the cradle were of a greater cross-sectional area, the inflow of cleaning fluid would be smaller than the outflow. In such a configuration, the cradle 7 would receive, but not retain cleaning fluid.

(Second Nayfeh Report, at 27.)

29. Dr. Nayfeh thus concedes that there is no written description in either patent specification for a "cradle structure" that receives, but does not retain cleaning fluid. He then offers speculation as to what would be "clear to one of ordinary skill in the art" which, in my opinion, is not a substitute for actual written description.

30. I moreover disagree with Dr. Nayfeh that it would be "clear" to the ordinary artisan that the "cradle 7" could be modified as he suggests. Mr. Braun has testified that in his design, if fluid were not retained in the "cradle structure," the cleaning process would be no different than merely running the shaver in air. (Ex. 16, Braun Dep., at 75.) Put simply, Mr. Braun expressed that the device he conceived (with Dr. Pahl) would not clean without the retention of fluid in the cradle. In my opinion, one of

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ordinary skill in the art would not consider modifying the device disclosed in the patents in suit as Dr. Nayfeh suggests, such that it could not perform the intended function -- cleaning.

31. Dr. Nayfeh then points to claim 2 of the '328 patent, stating "I understand that limitations from the preferred embodiment ought not to be inserted into the claims." (Second Nayfeh Report, at 27.) Dr. Nayfeh's reliance upon claim 2 is an illogical red herring for a number of reasons.

32. First, while I have opined that the Court's claim construction should be modified in my Second Expert Report, the focus in my First Expert Report is whether there is written description for the "cradle structure" limitation, as construed by the Court. Claim 2 simply recites a characteristic of the only embodiment of the "cradle structure" described in the patents in suit, and it thus provides no additional written description.⁴

33. Second, I understand that the adequacy of written description is analyzed as of the filing date of the patents in suit -- here, January 1995. Claim 2 is similar to a claim that was originally filed, but it was amended during prosecution. (Ex. 12.) Claim 2 depends from claim 1, and claim 1 was substantially amended during prosecution. (Ex. 12.) One of ordinary skill in the art therefore would not even have had access to claim 2 in January 1995, further demonstrating the illogic of Dr. Nayfeh's reliance upon claim 2.

⁴ Dr. Nayfeh's reliance upon claim 2 also does not change my opinion that the Court's claim construction should be modified. I am aware that limitations from dependent claims should not be read into an independent claim. I, however, propose that the Court's construction should read "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive and retain fluid." My proposed construction does not recite or imply anything about the cross-sectional area of an outlet port of a "cradle structure" (assuming that a particular "cradle structure" even has an outlet port).

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34. Third, even if claim 2 assisted Braun with respect to the '328 patent, claim 2 does not appear in the '556 patent. There is also nothing analogous to claim 2 in the '556 patent. It thus appears that Dr. Nayfeh made a mistake in asserting that claim 2 of the '328 patent provides written description for the '556 patent.

35. Finally, Dr. Nayfeh grossly distorts the testimony of Dr. Pahl when Dr. Nayfeh asserts that "Dr. Pahl testified that he had conceived of a cleaning system wherein liquid was not retained by the cradle, but was flushed through the shaver head." (Second Nayfeh Report, at 27.) At the page cited by Dr. Nayfeh, Dr. Pahl actually responds to an inquiry as to the differences (if any) between Dr. Pahl's cleaning device and a dishwasher. Dr. Pahl responded by noting that someone at Braun considered spraying cleaning fluid but decided not to pursue the thought. (Ex. 14, at 80.) This is hardly a statement that Dr. Pahl conceived of a cleaning system in which fluid is flushed through the shaver head, as in Rayovac's cleaning system. Dr. Pahl, in fact, testified that he did not know when this idea arose or whether it was ever tested. It appears that at some undisclosed time Dr. Pahl (or some other individual) may have had an abstract idea and never followed up with it. I am aware of no documents that substantiate Dr. Pahl's testimony.

36. Put simply, the fact that fluid would be sprayed into the "cradle" does not imply that fluid would not have been retained by the cradle. It thus remains my opinion that Dr. Pahl and Mr. Braun never conceived of a cleaning system in which the "cradle structure" received, but did not retain cleaning fluid.

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C. NEW MATTER

37. I understand that the introduction of new matter invalidates a patent if the patentee represented that no new matter had been introduced in the corresponding patent application. I further understand that amendments to the claims or the specification of a predecessor application are new matter unless the predecessor application would reasonably convey to one of ordinary skill in the art that the inventor had possession of the amended subject matter when the predecessor application was filed.

38. Dr. Nayfeh appears to opine that that the terms "receptacle" and "cradle structure" mean the same thing. For reasons set forth at Paragraphs 55-59 of my First Expert Report, I disagree.

39. Dr. Nayfeh's opinion simply ignores reality. As discussed above in connection with my indefiniteness opinion, Braun explicitly stated that the Lee Patent lacked a "cradle structure" in response to a rejection from the Examiner. In particular, Braun argued that the "receptacle 10" in the Lee Patent was "not adapted to 'cradle' anything[,] [sic] much less a shaving head. The specification makes it quite clear that 'a cradle adapted to receive therein a shaving head' is not an open basin into which the shaving apparatus can be tossed without any means designed to particularly receive and/or cradle the shaving head." (Ex. 19, at B000096.) If Braun's U.S. application claims had read a "receptacle adapted to receive therein a shaving head," Braun would not have argued that "receptacle 10" in the Lee Patent is not a "receptacle." Braun placed significance on the word "cradle" that would otherwise have been unavailable with the

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word "receptacle." This example based upon facts demonstrates that Dr. Nayfeh's opinion is wrong.

40. Dr. Nayfeh also states that I "mistakenly conclude[] that the French Patent described in the '328 Patent specification was not in the corresponding German application." (Second Nayfeh Report, at 27 n. 1.) He then cites to an "addendum to the corresponding German application" filed in October 1994. Dr. Nayfeh is the only one who has made a mistake. In my First Expert Report, I analyzed the question whether the '328 patent added new matter to the German application filed in January 1994 to which the '328 patent claims priority. I obviously did not address Braun's subsequent modifications to the German application. That said, Dr. Nayfeh tacitly concedes that the '328 patent's discussion of the French '111 patent does not appear in the January 1994 German priority application.

D. BEST MODE

41. I understand that a patent is invalid if an inventor fails to disclose the best mode contemplated by him, as of the time his patent application was filed, of carrying out his invention. I also understand that the written description of a patent is viewed from the perspective of one of ordinary skill in the art in determining whether a best mode of practicing an invention was concealed. It remains my opinion that the patents in suit do not disclose the cleaning fluid preferred by the inventor or inventors (if Dr. Pahl is joined as an inventor).⁵

⁵ I understand that Braun has not yet produced any information concerning the chemical composition of the inventor(s)' preferred cleaning fluid. To the extent that Braun does produce such information, I reserve the right to comment upon it.

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42. Dr. Nayfeh begins his opinion by acknowledging that Dr. Pahl knew that his preferred cleaning fluid "had to be fat soluble and talcum soluble." (Second Nayfeh Report, at 28.) As expressed in my First Expert Report, the only thing either patent discloses regarding the cleaning fluid is that it should be "fat dissolving." The patents in suit do not say anything about talcum solubility, and Dr. Nayfeh does not appear to disagree.

43. Dr. Nayfeh then opines that "the phrase 'fat-dissolving cleaning fluid' would immediately suggest to one skilled in the art the use of an alcohol-based cleaning fluid." (Second Nayfeh Report, at 28.) Dr. Nayfeh thus appears to acknowledge that the patents in suit do not disclose the use of an alcohol as the main ingredient of the preferred cleaning fluid.

44. Moreover, one of ordinary skill in the art would be aware of alcohol-based solvents. I, however, disagree that the words "fat-dissolving" would "immediately" lead one of ordinary skill in the art to an alcohol-based cleaning fluid. Simply, there would be many types of cleaning fluids available to one of ordinary skill in the art that could also dissolve fat. Examples include (1) naptha and (2) detergent mixed with water. The specifications of the patents in suit do not disclose which among many such cleaning fluids the ordinary artisan should select.

45. Next, without any support, Dr. Nayfeh opines that, "because the application is cleaning a shaving head, one of ordinary skill in the art would recognize that a lubricant would be desired to maintain the integrity of the cutters within the shaving head." (Second Nayfeh Report, at 29.) Again, Dr. Nayfeh appears to

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acknowledge that the specifications of the patents in suit disclose nothing about using a lubricant in the cleaning fluid.

46. As stated in my First Expert Report, one of ordinary skill in the art would not expect to put a lubricant in the cleaning fluid. At a minimum, this would change the viscosity of the cleaning fluid that Dr. Pahl believed to be important. As a practical matter, one of skill might expect to lubricate following cleaning as with the cleaning of a gun. But, it remains my opinion that it would be counter-intuitive to one of ordinary skill to put a lubricant in the cleaning fluid.

47. I also disagree with Dr. Nayfeh that there are "several reasons" that one of ordinary skill in the art would "desire" a cleaning fluid based with "low viscosity." (Second Nayfeh Report, at 29.) Again, Dr. Nayfeh appears to acknowledge that the patents in suit disclose nothing about the viscosity of the cleaning fluid. In any event, it is my opinion that wetting and surface tension would be of interest to one of ordinary skill in the art, but viscosity would not.

48. Dr. Nayfeh finally opines that one of ordinary skill in the art would "know that a fragrance would be desired" because the "cleaning product is a personal hygiene product." (Second Nayfeh Report, at 29.) As with all other attributes of Dr. Pahl's preferred cleaning fluid, Dr. Nayfeh appears to acknowledge that the specifications of the patents in suit disclose nothing about the use of a fragrance. I moreover disagree with Dr. Nayfeh that one of ordinary skill in the art would consider the cleaning device of the patents in suit a "personal hygiene product." A toothbrush or a wash cloth is a personal hygiene product. The cleaning device described in the patents in suit is not.

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49. It thus remains my opinion that the patents in suit fail to disclose the best mode of practicing the claimed invention contemplated by the inventor(s).

E. INVENTORSHIP

a. Norbert Smetana

50. Dr. Nayfeh states that he disagrees with my opinion that Mr. Smetana at least jointly conceived the idea for claim 13 of the '328 patent because (1) Dr. Pahl testified that his original prototype had a heater and an impeller and (2) Mr. Hoeser testified that Dr. Pahl's November 1992 presentation illustrates a heater and a fan. (Second Nayfeh Report, at 29.) Neither justification provided by Dr. Nayfeh changes my opinions.

51. It is true that Dr. Pahl testified that his original prototype contained an impeller and a heater. It is possible that Dr. Pahl's memory was a bit off as I have seen no documents corroborating his recollection. Moreover, the August 1993 memorandum from Mr. Smetana to Mr. Braun, Dr. Pahl and Dr. Jung indicates that the prototype Mr. Smetana blew cold air to dry the shaver. (Ex. 29.) The same memorandum also concludes with Mr. Smetana's recommendation that a heater be combined with the fan. (Ex. 29.) In my experience, an engineer would not recommend to his superiors the inclusion of a feature already present in a prototype.

52. I have analyzed the November 1992 presentation (Pahl exhibit 27) noted by Dr. Nayfeh, and I can locate no drawing or description corresponding with the use of an impeller and heater for drying. (Ex. 38.) Mr. Hoeser likewise was unable to find the

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impeller and heater in Dr. Pahl's presentation. (Ex.17, at 82.) The November 1992 presentation offers no evidence which would persuade me to alter my opinion.

53. Finally, Dr. Nayfeh states that "the use of heat to speed drying was well known by one of ordinary skill in the art prior to Mr. Smetana's involvement in the cleaning device." (Second Nayfeh Report, at 29.) I do not disagree. Indeed, it is my opinion that the use of a fan to speed drying was also well known to one of ordinary skill in the art, and claim 12 of the '328 patent is at least obvious. Assuming my opinions regarding claim 12 were found to be correct, Dr. Nayfeh presumably would not disagree that claim 13 is also at least obvious.

54. However, to the extent that claims 12 and 13 are found to be non-obvious (although I cannot see how), it remains my opinion that Mr. Smetana at least jointly conceived of the alleged invention of claim 13.

b. Helmut Kraus

55. Dr. Nayfeh states that he disagrees with my opinion that Mr. Helmut Kraus was the first person to conceive the idea for claim 19 of the '328 patent. To do so, Dr. Nayfeh distorts the deposition testimony of Mr. Braun and Dr. Pahl.

56. At page 77 of Mr. Braun's deposition, he testified that he "knew that the customer should not remove the device while it was wet" from his past experience. (Ex. 16, at 77.) Contrary to Dr. Nayfeh's statement, Mr. Braun did not testify that he was aware of the need for an interlock. (Second Nayfeh Report, at 30.)

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57. At pages 68-69 of Mr. Braun's deposition, he testified that he improved Dr. Pahl's original prototype by adding an interlock. (Ex. 16, at 68-69.) Despite what Dr. Nayfeh opines, Mr. Braun did not testify that the interlock was his idea.

58. Dr. Pahl did not confirm "Mr. Braun's recollection" in his testimony. Rather, he stated that he "assumed" that Mr. Braun had invented the interlock. As stated at Paragraphs 74-80 of my First Expert Report, Dr. Pahl testified later in the day that he most likely conveyed Mr. Kraus' suggestion to Mr. Braun personally, and Mr. Braun then implemented it.

59. Thus, none of the testimony cited by Dr. Nayfeh changes my opinion.

60. Dr. Nayfeh also opines that "[Mr. Kraus'] suggestion itself does not disclose how or where the lock should be implemented." (Second Nayfeh Report, at 30.) I disagree.

61. As discussed further below in connection with my obviousness opinion, the obvious way to implement Mr. Kraus' suggestion for an interlock would be with a bracket with a built-in switch. It is my opinion that any additional work performed by Mr. Braun would have required no more than routine engineering. Thus, to the extent the interlock is inventive (and Dr. Nayfeh does not argue it is not), it remains my opinion that Mr. Kraus conceived of the idea for claim 19 of the '328 patent.

F. ANTICIPATION

62. I have analyzed whether various prior art references anticipate the asserted claims of the patents-in-suit. I understand that in order to anticipate a prior art reference must disclose each element of a particular claim.

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The '556 Patent

a. U.S. Patent No. 3,365,267 ("McKinley")

Claim 1

63. The McKinley Patent discloses "a cleaning device for cleaning a shaving head of a dry shaving apparatus" for reasons set forth at Paragraph 83 of my First Expert Report. Dr. Nayfeh opines that "the McKinley Patent discloses a sterilizing device for sterilizing clipper blades that have been disassembled from the head of a clipper apparatus. It does not disclose a device for cleaning the clipper head itself." (Second Nayfeh Report, at 15.)

64. Dr. Nayfeh appears to agree with my opinion that a hair clipper is a type of dry shaving apparatus. He, however, implies that the preamble of the '556 patent requires a degree of cleaning of the "shaving head." Dr. Nayfeh is wrong.

65. As recognized in the McKinley Patent, it is essential that the clipper blades of the hair clipper be cleaned. The preamble of the '556 patent is silent as to the degree of cleaning of the "shaving head." Cleaning the clipper blades in the McKinley Patent is all that is necessary for the "shaving head" of the hair clipper to be cleaned in the cleaning device. I thus disagree with Dr. Nayfeh that the McKinley Patent does not disclose the preamble limitation.

66. The McKinley Patent discloses "a cradle structure adapted to receive therein the shaving head" for reasons set forth at Paragraphs 84-85 of my First Expert Report. I understand that the Court has tentatively construed the element-at-issue to

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mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both."

67. In connection with claim 11 of the '328 patent, Dr. Nayfeh states that shelf 44 of the McKiney Patent "is not adapted to support or receive anything." (Second Nayfeh Report, at 3.) Dr. Nayfeh's opinion is startling insofar as the McKiney Patent explicitly states: "[Shelf 44] is specifically adapted to support clipper blades[.]" (Ex. 8, at col. 3. l. 37.) In light of the explicit disclosure in the McKiney Patent, I must disagree with Dr. Nayfeh.

68. Dr. Nayfeh then states that shelf 44 "cannot be properly called a 'cradle structure adapted to receive a shaving head of a shaving apparatus,' which one skilled in the art would understand to require a structure of form and dimensions to 'cradle' the shaving head." As was the case with indefiniteness, Dr. Nayfeh appears to ignore the Court's tentative construction of the "cradle structure" limitation.

69. Dr. Nayfeh's use of the word "cradle" in quotes in an attempt to distinguish the shelf 44 of the McKiney Patent is reminiscent of Braun's attempt to distinguish the receptacle of the Lee Patent during prosecution. Nothing in the Court's construction requires that the "cradle structure" have any particular form and dimensions as Dr. Nayfeh implies. Simply, Braun stated at the Markman Hearing that it agreed with the Court's tentative construction of the "cradle structure" limitation, and I do not understand why Dr. Nayfeh is trying to avoid that construction now.

70. Finally, Dr. Nayfeh states that the "cradle structure of claim 11 is adapted to receive the shaving head of a dry shaving apparatus, without disassembly of the

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shaving head into its cutter and foil components. Indeed, the '328 Patent is clear that the invention does not involve disassembly of the shaving head of the shaving apparatus."⁶ (Second Nayfeh Report, at 4.) Dr. Nayfeh then goes on to cite a number of portions of the '328 patent specification.

71. The problem with Dr. Nayfeh's opinion is that none of his citations say anything as to whether the "cradle structure" may only receive a the head of an assembled shaver. Indeed, the words "assemble," "disassemble," or "disassembly" do not appear in the patent at all. There is simply nothing in the specification or the claims that says that the cleaning device of the '556 patent cannot be used to clean a disassembled shaving head. Again, I have reviewed the Markman briefing and the transcript from the Markman Hearing, and I can locate nowhere any argument that the "cradle structure" limitation should be defined as Dr. Nayfeh suggests.

72. Dr. Nayfeh's citations also imply that removing the clipper blades from the hair clipper is a difficult process. Nothing could be further from the truth. I have analyzed a hair clipper, and removal of the clipper blades is simple. I intend to explain the hair clippers to the jury, and I have attached pictures of the hair clippers with the blades attached and removed. (Ex. 39)

73. Finally, Dr. Nayfeh's opinion that the claimed "cradle structure" only receives an assembled shaving head with "foil components" is troubling insofar as he has also opined that Rayovac's rotary products infringe the patents in suit. If this is indeed

⁶ Dr. Nayfeh incorporates his discussion of the McKinney Patent for claim 11 of the '328 patent into claim 1 of the '556 patent.

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his opinion, I assume that he will withdraw his opinion that Rayovac's rotary products infringe.

74. I understand that the Court has tentatively construed the term "a cleaning fluid container separate from the cradle structure for holding a cleaning fluid" to mean "a separate cleaning fluid that is a removable cartridge which holds cleaning fluid." I also understand that Braun will argue that Rayovac's accused products have a "removable cartridge which holds cleaning fluid." As stated at Paragraph 85 of my First Expert Report, if Dr. Nayfeh is correct that the claim limitation reads on Rayovac's products, the McKinney Patent discloses the limitation.

75. Dr. Nayfeh opines that "one skilled in the art would understand that a cartridge is a case or container that holds a substance, device, or material which is difficult, troublesome, or awkward to handle and that usually can be easily changed." (Second Nayfeh Report, at 16.) Dr. Nayfeh then opines that tank 14 of the McKinney Patent is not "readily removable from the cleaning device and therefore, not a removable cartridge."

76. I initially disagree with Dr. Nayfeh that it is necessary to construe the Court's construction, in particular the word "cradle." One of ordinary skill in the art (and lay people as well) knows what a cartridge is.

77. Moreover, I disagree with Dr. Nayfeh that a cartridge is not a "cartridge" unless it is readily removable. The oil filter in a car is a cartridge, and anyone who has removed one knows that it is a time-consuming process.

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78. Further, tank 14 can be readily separated from tank 12. As shown in Figure 3, between flexible conduit 18 and tube 20 there is depicted an enlarged portion of hose, thus forming a joint that could be readily disconnected.

Claim 6

79. The McKiney Patent discloses "the cleaning fluid container includes ports through which cleaning fluid passes in and out of the cleaning fluid container." Dr. Nayfeh does not disagree with me.

Claim 18

80. The McKiney Patent discloses "the cradle structure is open towards atmosphere and is supplied with cleaning fluid from the cleaning fluid container by means of the fluid feed mechanism." Dr. Nayfeh does not disagree with me.

b. U.S. Patent No. 3,500,840 ("Maatz")

Claim 1

81. Claim 1 first requires: "A cleaning device for cleaning a shaving head of a dry shaving apparatus." The Maatz Patent discloses this element in its teaching of a device for washing barber's tools. (Ex. 10, at col. 1, l. 3 & col. 2, ll. 10-11.)

82. As with the McKiney Patent, Dr. Nayfeh again opines that the Maatz Patent does not disclose the preamble limitation because "the Maatz device would require disassembly of the clipper head and removal of the clipper blades." (Second Nayfeh Report, at 16-17.) For reasons set forth at Paragraphs 92-101, I disagree.

83. The Maatz Patent discloses "a cradle structure adapted to receive therein the shaving head." I understand that the Court has tentatively construed the element-at-

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issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." "Cleaning tank [10] is provided with a rack 15 and a series of magnets 16 for holding the tools while they are cleaned. A grid 17 is mounted in the tank for holding larger tools." (Ex. 10, at col. 2, ll. 27-30.)

84. Dr. Nayfeh concedes that the cleaning device of the Maatz Patent would be used to clean clipper blades. For reasons discussed above, it is my opinion that receipt of the clipper blades constitutes receipt of a "shaving head."

85. Dr. Nayfeh then opines: "Rack (15) and grid (17) merely provide surfaces onto which clipper blades that have been disassembled from the head of a hair clipper apparatus can be supported by means of magnets." (Second Nayfeh Report, at 8.) The Maatz Patent, in fact, explicitly states: "The tools to be cleaned are placed in the cleaning tank either by positioning them in the rack 15 or laying on the grid 17." (Ex. 10, col. 3, ll. 2-4.)

86. I, however, disagree with Dr. Nayfeh that "[s]uch surfaces cannot be properly called 'cradle structures' and are not adapted to receive a shaving head of a shaving apparatus." Again, Dr. Nayfeh appears to be running away from the Court's construction. The rack and grid obviously (1) are "structures" and (2) at least receive cleaning fluid. Moreover, as the quote from the Maatz Patent above makes explicit, the rack and grid receive and support the clipper blades, which are the head of the hair clipper.

87. It thus remains my opinion that the Maatz Patent anticipates claim 1 of the '556 patent.

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ATTORNEY EYES ONLY****Claim 6**

88. The Maatz Patent discloses “the cleaning fluid container includes ports through which cleaning fluid passes in and out of the cleaning fluid container.” Dr. Nayfeh does not disagree with me.

Claim 18

89. The Maatz Patent discloses “the cradle structure is open towards atmosphere and is supplied with cleaning fluid from the cleaning fluid container by means of the fluid feed mechanism.” Dr. Nayfeh does not disagree with me.

The ‘328 Patent**c. U.S. Patent No. 3,365,267 (“McKinney”)****Claim 11**

90. The McKinney Patent discloses “a cradle structure adapted to receive a shaving head of a shaving apparatus.” I understand that the Court has tentatively construed the element at issue to mean “a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both.” For reasons set forth at Paragraphs 102-108, I disagree with Dr. Nayfeh that the McKinney Patent does not disclose the “cradle structure” limitation.

91. Moreover, the claims of the ‘328 patent are not limited to a “dry shaving apparatus.” Rather, the ‘328 patent claims the broader “shaving apparatus,” a term that includes both hair clippers and razors. Dr. Nayfeh tries to escape that fact by arguing incorrectly that “the cradle structure of claim 11 is adapted to receive the shaving head of a *dry* shaving apparatus.” (Second Nayfeh Report, at 4.)

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92. In addition to the hair clippers cleaned in the McKinney Patent, the McKinney Patent also discloses the cleaning of a razor 42, a "shaving apparatus," with liquid. (Ex. 8, at Fig. 3.) Razor 42, which has not been disassembled, is held in slot 38 and received by tank 12. Both slot 38 and tank 12 are (1) structures; (2) adapted to receive or support a shaving apparatus; and (3) able to at least receive cleaning fluid. Dr. Nayfeh has failed to offer any response to this aspect of my opinion.

93. I understand the Court has construed the term "a drying device" to mean "a device to dry the shaver head." The McKinney Patent discloses a "drying device." In particular, the siphon tube 24 acts to automatically drain the fluid from container 12, allowing the cleaned shaver head to dry. (Ex. 8, at col. 4, ll. 12-13.)

94. Dr. Nayfeh opines that the siphon tube 24 is not a "drying device" because "it is not a mechanism for active drying of the barber tools." (Second Nayfeh Report, at 4.) As with the "cradle structure" limitation, Dr. Nayfeh appears to be trying to avoid the claim construction advocated by Braun and agreed to by the parties. The agreed construction requires only a "device," and it does not require that that the drying be "active."

95. Aside from his modification of the parties' agreed construction, Dr. Nayfeh does not appear to quarrel with my opinion that the siphon tube assists in the drying of the cleaned barbers' tools. Simply, without the siphon tube, the barbers' tools could not drip dry, and the barber would need to dry them with, for example, a towel.

96. It thus remains my opinion that the McKinney Patent discloses a drying device.

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Claim 14

97. I incorporate by reference my discussion of the elements common to both claim 11 and claim 14 from above. I note that Dr. Nayfeh does not disagree that the tank 12 and shelf 44 are “permanently open to the atmosphere.”

Claim 18

98. I incorporate by reference my discussion of the elements common to both claim 11 and claim 18 from above.

99. Claim 18 recites “a bracket for insertion of the shaving apparatus therein.” I understand that the Court has tentatively construed the term “bracket” to mean “a bracket or projecting support.” The McKinley Patent discloses a bracket or projecting support for insertion of the shaving apparatus therein including shelf 34, slot 38, and magnets 46.

100. Dr. Nayfeh concedes that a shelf “in certain circumstances” may be considered a bracket or projecting support. He also concedes that “shelf 34 is designed to hold scissors and wet razors.” That is precisely the point. As discussed above, Dr. Nayfeh completely ignores my opinion that the ‘328 patent covers both wet and dry shaving apparatuses. Dr. Nayfeh’s opinion that “a hair clipper apparatus” is my “supposed shaving apparatus” rests on a faulty premise. It is true that one shaving apparatus disclosed in the McKinley Patent is a hair clipper. But, it is equally true that another shaving apparatus is the wet razor illustrated as item 42 in Figure 3. As Dr. Nayfeh has misunderstood my opinion and read an improper limitation into the ‘328 patent, nothing he has said alters my opinion.

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101. Moreover, Dr. Nayfeh opines that magnets 46 are not “properly considered a bracket by one of ordinary skill in the art,” but he provides no reason why not. It is thus difficult for me to comment on his reasoning. Nevertheless, for reasons set forth at Paragraphs 111-112 of my First Expert Report, I disagree with him.

d. U.S. Patent No. 3,478,758 (“Davies”)

Claim 11

102. The Davies Patent discloses “a cradle structure adapted to receive therein the shaving head.” I understand that the Court has tentatively construed the element-at-issue to mean “a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both.” The Davies Patent discloses: “[I]mplement positioning means 20 comprises a perforated tray 74 for holding an implement to be washed and sterilized and locating the instrument in its aforementioned washing and sterilizing positions.” (Ex. 9, at col. 4, ll. 34-36.)

103. Dr. Nayfeh states that, “contrary to Mr. Phillip[s’] [sic] suggestion, the Davies patent teaches support of clipper blades by brushes rather than placement into the tray.” (Second Nayfeh Report, at 6.) It is true that the brushes in the Davies Patent are used to clean clippers. The Davies Patent says nothing about “support” by brushes. But, the liquid cleaning device in the Davies Patent is used for all implements, the only implement specifically named being a hair clipper.

104. Braun has argued that brushes are not preferred for cleaning the head of a shaving apparatus. (Ex. 35.) Accordingly, one of ordinary skill would necessarily recognize that the hair clippers could be cleaned with the cleaning fluid of the Davies

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Patent. Dr. Nayfeh appears to acknowledge this in his discussion of how the clipper blades would be positioned on the tray 74.⁷

105. Dr. Nayfeh then opines: "The tray 74 could provide a surface onto which clipper blades that have been disassembled from the head of a hair clipper apparatus can be support[ed] [sic] by means such as magnets. Such a surface cannot be properly called a 'cradle structure' and is not adapted to receive the shaving head of a shaving apparatus." (Second Nayfeh Report, at 6.)

106. Dr. Nayfeh again appears to be relying upon his erroneous reconstruction of the Court's tentative claim construction. The tray 74 of the Davies Patent obviously (1) is a structure and (2) able to receive cleaning fluid.⁸ Moreover, for reasons set forth above, the tray 74 at least receives the clipper blades which are the head of a shaving apparatus. It thus remains my opinion that the Davies Patent discloses the "cradle structure" limitation.

107. The Davies Patent discloses "a feed device for feeding cleaning fluid from said cleaning fluid container to said cradle structure." In the Davies Patent, fluid is fed from an external source through fitting 80. (Ex. 9, at col. 4, ll. 66-69.)

108. Dr. Nayfeh opines that the Davies Patent discloses manual feeding of cleaning fluid through a hose to the fitting 80. (Second Nayfeh Report, at 6.) He then states: "This manner of feeding is not properly considered a mechanism that feeds

⁷ It would at least be obvious to clean the clipper blades in the tray 74 of the Davies Patent.

⁸ Here and at other places in his report, Dr. Nayfeh seems to argue that a surface cannot be a "structure." I find this opinion particularly inconsistent with his opinion that the "cradle structure" limitation reads on, for example, the exterior surfaces of the injection nozzles in Rayovac's accused products.

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cleaning fluid.” I do not see how Dr. Nayfeh can possibly believe that a hose and a water tap are not a fluid feed mechanism. Both the ordinary artisan and lay people regularly use a hose and a water tap to “feed” water for uses such as watering their lawns. Indeed, the Davies Patent states: “The liquid 14 is initially fed to the container 12, through the fitting 80[.]” (Ex. 9, col. 4, ll. 72-74.) I thus strongly disagree with Dr. Nayfeh.

109. Dr. Nayfeh then opines that “the Davies device provides no mechanism for feeding cleaning fluid from container 12 to tray 74, Mr. Phillips’ supposed cradle structure.” (Second Nayfeh Report, at 6.) The Davies Patent states: “Liquid is initially fed to the container 12, through fitting 80, until the liquid level rises above the implement on the tray.” (Ex. 9, at col. 4, ll. 73-75.) That is, during feeding, the level of fluid in the container rises until it reaches the tray. Given the design of the device in the Davies Patent, I can see no other way that the fluid could be fed to the tray, and I strongly disagree with Dr. Nayfeh’s opinion.⁹

110. I understand that the Court has construed the term “said cradle structure being arranged above a fluid level of the cleaning fluid in said cleaning fluid container during the feeding of said cleaning fluid to said cradle structure” to mean “during the feeding operation, the cradle structure is above the fluid level of the fluid in the cleaning fluid container.” In one embodiment of the Davies Patent, the “cradle structure” is above the level of the cleaning fluid in the container 12 prior to the washing. “According to the alternative method . . . of locating an implement in its washing and sterilizing positions, the implement tray 74 is supported in its elevated position of FIGURE 3, and the liquid

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14 is initially fed to the container 12, through the fitting 80, until the liquid level rises above the implement on the tray. The implement is then submerged in its washing position within the liquid.” (Ex. 9, at col. 4, l. 69 - col. 5, l. 1.)

111. Dr. Nayfeh states that “[i]t is clear from th[e] description [in the specification] that the tray 74 is not above the fluid level of the cleaning fluid in the cleaning fluid container during the entire feeding operation.” (Second Nayfeh Report, at 7.) Dr. Nayfeh thus concedes that the fluid level of the cleaning fluid in the cleaning fluid container is below the tray 74 during at least part of the feeding operation.¹⁰ Nothing in the parties’ agreed claim construction requires that the fluid level be below the “cradle structure” during the entire feeding operation. It thus remains my opinion that the Davies Patent discloses the element at issue.

Claim 12

112. I understand the Court has tentatively construed the term “an impeller” to mean “a rotating device or member of a turbine, blower, fan, or an axial or centrifugal pump.” The Davies Patent thus discloses a drying device comprising an impeller. “Blower 22 is conventional and includes an outer cylindrical shroud 46 having a lower flange 48 which seats on the upper wall of container lid 28 about the lid opening 42 ... Rotably mounted within the shroud 46, for turning on the axis of the shroud, is a fan 50.” (Ex. 9, at col. 3, ll. 53-57.) Dr. Nayfeh does not disagree with me.

⁹ I note as well that Dr. Nayfeh’s opinion is inconsistent with his opinion that the “fluid feed mechanism” limitation of the ‘556 patent does not require a sequence.

¹⁰ Moreover, as opined in my First Expert Report, when the fluid reaches the tray 74, the feeding operation is done. At that point, the cleaning operation begins.

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Claim 14

113. I incorporate by reference my discussion of the elements common to both claim 11 and claim 14 from above.

114. Claim 14 further describes the “cradle structure” as “said cradle structure being permanently open to the atmosphere.” In the Davies Patent, openings in blower 22 and deodorizer cartridge permanently vent (“open”) the cleaning device and the “cradle structure” to the atmosphere. “It is evident at this point that blower 22 is effective to exhaust air from the container 12 to atmosphere through the opening 42 in the container lid 28 and the opening 44 in the upper lid compartment 40.” (Ex. 9, at col. 3, ll. 59-63.) “It is now obvious, therefore, that during operation of the blower 22, exhaust air flow from the container 12 occurs through the deodorizing cartridge 54, which is thereby effective to deodorize the emerging air.” (Ex. 9, at col. 3, ll. 70-74.)

115. Dr. Nayfeh argues that “[a]s the ‘328 Patent explains this feature of the cradle structure enables the shaving apparatus to be inserted into the cradle structure without any effort and to be removed without the need to utilize any parts closing the cradle structure.” (Second Nayfeh Report, at 10.) Dr. Nayfeh thus appears to be arguing that the “permanently open to the atmosphere” limitation requires a big hole for the shaver head. I disagree. I understand that the parties agreed that the limitation means only “permanently open to the air.” The limitation regarding ease of insertion and removal appear nowhere in the parties’ agreed construction.

116. That an operator of the Davies device would need to open the lid 28 of the device to insert an item to be cleaned does not change the fact that the tray 74 is

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permanently vented to the open air. Dr. Nayfeh's statements about the opening and closing of the lid 28 thus have nothing to do with limitation at issue, as the parties have agreed it should be construed.

117. It thus remains my opinion that the Davies Patent discloses the element at issue.

e. **U.S. Patent No. 3,500,840 ("Maatz")**

Claim 11

118. The Maatz Patent discloses "a cradle structure adapted to receive therein the shaving head." I understand that the Court has tentatively construed the element-at-issue to mean "a structure adapted to support or receive a shaving head of a shaving apparatus and able to receive or retain fluid or both." "Cleaning tank [10] is provided with a rack 15 and a series of magnets 16 for holding the tools while they are cleaned. A grid 17 is mounted in the tank for holding larger tools." (Ex. 10, at col. 2, ll. 27-30.) For reasons set forth at Paragraphs 122-127, I disagree with Dr. Nayfeh that the Maatz Patent does not disclose the "cradle structure" limitation.

119. Moreover, the claims of the '328 patent are not limited to a "dry shaving apparatus." Rather, the '328 patent claims the broader "shaving apparatus," a term that includes both hair clippers and razors.

120. In addition to the hair clippers cleaned in the Maatz Patent, the barbers' tools reference would necessarily include wet razors, another type of shaving apparatus. As can be seen in Figure 2, rack 15 has a rectangular slot that would be used to hold a wet razor. The wet razor would be place through the rectangular slot in rack 15 and then

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received and supported in tank 10. "The tools to be cleaned are placed in the cleaning tank either by positioning into the rack 15 or laying them on the grid 17. The circulating pump is then started and the fluid circulated." (Ex. 10, at col. 3, ll. 2-5.)

121. Dr. Nayfeh states that tank 10 "is adapted to receive sterilizing fluid; it is not adapted to receive a shaving head of shaving apparatus." (Second Nayfeh Report, at 8.) As the quote above illustrates, that is nonsense. The tank 10 is adapted to receive fluid and the barbers' tools. Otherwise, nothing would get cleaned. The tank 10 is a structure meeting the Court's tentative claim construction. It thus remains my opinion that the Maatz Patent discloses the "cradle structure" limitation.

122. I understand that the Court has construed the term "a drying device" to mean "a device to dry the shaver head." In the Maatz Patent, the cleaning tank 12 has a drain 22 (Ex. 10, at Fig. 2.) The drain is a device which allows the fluid to drain from the cleaning tank 10, thereby facilitating the drying of the shaver head.

123. Dr. Nayfeh's opinion regarding the drain of the Maatz Patent is identical to his opinion regarding the siphon tube of the McKinney Patent. That is, he concludes that the Maatz Patent does not disclose a "drying device" by modifying the parties' agreed claim construction. As with the McKinney Patent, it remains my opinion that the Maatz Patent discloses a "drying device."

Claim 14

124. I incorporate by reference my discussion of the elements common to both claim 11 and claim 14 from above.

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125. Claim 14 further describes the “cradle structure” as “said cradle structure being permanently open to the atmosphere.” Cleaning tank 10 is clearly permanently open to the atmosphere. (Ex. 10, Fig. 2.) Dr. Nayfeh does not disagree.

Claim 18

126. I incorporate by reference my discussion of the elements common to both claim 11 and claim 18 from above.

127. Claim 18 recites “a bracket for insertion of the shaving apparatus therein.” I understand that the Court has tentatively construed the term “bracket” to mean “a bracket or projecting support.” The Maatz Patent discloses a bracket or projecting support for insertion of the shaving apparatus therein. In particular, rack 15 and a series of magnets are all brackets into which the shaving apparatus is inserted during cleaning. (Ex. 10, at col. 2, ll. 28-29.)

128. Dr. Nayfeh concedes that “a rack, like a shelf, can be considered in certain circumstances a bracket[.]” (Second Nayfeh Report, at 14). But, he then states that rack 15 “is not a projecting support or bracket for insertion of a hair clipper apparatus.” (Second Nayfeh Report, at 14.) Dr. Nayfeh has again misunderstood my opinion. The rectangular slot of rack 15 is clearly used to support a wet razor. As stated above, it is my opinion that a wet razor is a shaving apparatus, and Dr. Nayfeh offers no opinion to the contrary. It remains my opinion that the Maatz Patent discloses a “bracket for insertion of the shaver therein.”

f. U.S. Patent No. 2,976,552 (“Loeffler”)

Claim 14

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129. I understand that the Court has construed the term "a cleaning fluid container" to mean "a container for holding cleaning fluid." In the Loeffler Patent, the cleaning device includes a spray that holds a cleaning and sterilizing fluid. (Ex. 6, at col. 2, ll. 50-53.)

130. Dr. Nayfeh states that "the fluid in spray can 60 of the Loeffler device sterilizes the shaver; it does not clean it," and then concludes that the spray can is not a cleaning fluid container. (Second Nayfeh Report, at 11.) Dr. Nayfeh is wrong.

131. A can is obviously a container. Dr. Nayfeh also concedes that the can holds sterilizing fluid. His opinion is therefore that "sterilizing" is not "cleaning." Washing by spraying is necessarily a cleaning process, and one of ordinary skill in the art would know that sterilization is cleaning. Dr. Pahl, in fact, facilitated the development of Braun's cleaning device by using the existing cleaning fluid sold in Braun spray cans. (Ex. 14, Pahl Dep., at 36-37.) Indeed, in connection with his discussion of the MeKinney Patent, Dr. Nayfeh stated: "The sterilizing fluid then builds up in the upper tank, soaking the barber tools in the cleaning fluid." (Second Nayfeh Report, at 3.) Dr. Nayfeh's opinion is particularly suspect insofar as he is uses the terms "sterilizing fluid" and "cleaning fluid" as synonyms elsewhere in his report.

132. Dr. Nayfeh also opines that the cleaning fluid container limitation is not met because "there is no provision to catch or contain the contaminated fluid that would drain from the shaving head in a fluidic cleaning operation." It is true that fluid does not return to the spray can, but the "cleaning fluid container" limitation has no such requirement. The parties have agreed that "cleaning fluid container" means "a container

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for holding cleaning fluid.” Once again, Dr. Nayfeh appears to be attempting to change the parties’ agreed construction to evade the prior art. I moreover disagree that the “cleaning fluid container” means “a container for holding cleaning fluid that catches or re-contains contaminated cleaning fluid,” as Dr. Nayfeh appears to suggest. It thus remains my opinion that the Loeffler Patent discloses a “cleaning fluid container.”

133. The Loeffler Patent discloses “a feed device for feeding cleaning fluid from said cleaning fluid container to said cradle structure.” “The spraying can 60 is at the top thereof provided with a conventional, depressible valve 75 having the usual spray opening 76 at one side thereof.” (Ex. 6, at col. 2, l. 73 - col. 3, l. 2.)

134. Dr. Nayfeh states that “[v]alve 75 and opening 76 cannot rightly be called fluid feed devices.” (Second Nayfeh Report, at 12.) The valve 75 is a fluid feed device.¹¹ To illustrate, the Loeffler Patent states: “This causes the valve to be depressed to open the valve to force a powerful spray of disinfectant against the surface of the clipper head[.]” (Ex. 6, at col. 3, ll. 15-18.) “Forcing” a spray of fluid is clearly “feeding” that fluid to the clipper head. It is my opinion that one of ordinary skill in the art could not understand that explicit disclosure any other way.

135. I understand that the Court has construed the term “said cradle structure being arranged above a fluid level of the cleaning fluid in said cleaning fluid container during the feeding of said cleaning fluid to said cradle structure.” As is shown in Figure 1 of the Loeffler Patent, prior to spraying the clipper head, the spray can is tilted

¹¹ Insofar as Dr. Nayfeh has concluded that (1) a hose and tap and (2) valve 75 are not “fluid feed devices,” one has to wonder what aside from a pump Dr. Nayfeh thinks can “rightly be called” a fluid feed device.

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downward. Thus, the level of sterilizing/cleaning fluid in the can would be below the cradle. (Ex. 6, at Fig. 1.) In addition, the Loeffler Patent discloses that over time the amount of fluid in a particular spray can decreases, and the spray can will need to be replaced. (Ex. 6, at col. 1, ll. 51-56.) Thus, in the Loeffler Patent, the level of fluid in the “cleaning fluid container” will necessarily be below the “cradle structure” at least some of the time. Dr. Nayfeh opines that “the fluid level in the Loeffler device’s sterilizing fluid container is not below the cradle structure until the spray can has been partially emptied.” (Second Nayfeh Report, at 12.) While I continue to believe that the fluid level in the spray can will always be below the cradle structure during feeding, Dr. Nayfeh concedes that the fluid level will be below the cradle structure at least part of the time.

Claim 18

136. I incorporate by reference my discussion of the elements common to both claim 11 and claim 18 from above.

137. Claim 18 recites “a bracket for insertion of the shaving apparatus therein.” I understand that the Court has tentatively construed the term “bracket” to mean “a bracket or projecting support.” As shown in Figures 1 and 2 of the Loeffler Patent, there is an opening in the top of enclosure 1 into which the shaving apparatus is inserted above the cradle for the shaver head. (Ex. 6, at Figs. 1 and 2.) This opening provides support for the shaving apparatus and functions as a “bracket.”

138. Dr. Nayfeh opines: “[I]n Figure 1 of the Loeffler Patent, the opening is drawn larger than the shaver, indicating a large clearance between the shaver and the enclosure. There is nothing in the Loeffler Patent to indicate that this opening provides

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any support for the hair clippers." (Second Nayfeh Report, at 14.) The fact that the opening in the device appears "large" to Dr. Nayfeh is irrelevant. The hair clipper in the Loeffler Patent obviously has a center of gravity. The cradle structure shown in Figure 2 of the Loeffler Patent is V-shaped, and it clearly would not provide support sufficient to stop the shaver from tipping over. The opening into which the hair clipper is inserted thus must necessarily provide support.

139. A hole punched in a piece of sheet metal is a conventional bracket construction. The opening in the Loeffler Patent is precisely that type of construction. It thus remains my opinion that the Loeffler Patent discloses a "bracket for insertion of the shaving apparatus therein."

G. OBVIOUSNESS

140. I understand that a patent claim is invalid if what is claimed would have been obvious to one of ordinary skill in the art. I also understand that, to determine whether a patent claim is obvious, it is necessary to consider: (1) the scope and content of the prior art; (2) the differences between the prior art and the patent claims; (3) the level of ordinary skill in the art; and (4) the so-called secondary considerations of nonobviousness. I finally understand that, in analyzing the question of obviousness, the person of ordinary skill in the art is presumed to know all of the pertinent prior art.

141. While I believe there are no differences between the prior art and the asserted claims, if Braun attempts to assert any such differences I reserve the right to consider and address such arguments. It is my opinion, however, that any such differences would have been obvious to one of ordinary skill in the art.

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The '328 Patent

- a. **The McKinney and Maatz Patents combined with the Davies Patent, U.S. Patent No. 4,480,394 ("Salas"), U.S. Patent No. 5,076,306 ("Suzuki"), or the ultrasonic shaver head cleaning system at Braun.**

142. Initially, Dr. Nayfeh states that "Mr. Phillips' argument rests on the false premise that claim 11 of the '328 patent is anticipated by the McKinney and Maatz Patents." (Second Nayfeh Report, at 18.) In addition to the "cradle structure" element, he opines that I have failed to address the obviousness of the "drying device" element. The reason, of course, is that the McKinney and Maatz Patents both disclose "drying devices" under the construction agreed to by the parties. Moreover, it is my opinion that it would have been obvious to use an impeller with the cleaning devices of the McKinney and Maatz Patents. Assuming that Dr. Nayfeh agrees that an "impeller" is a "drying device," his attack upon my opinion amounts to little.

143. Dr. Nayfeh also points to the specification of the '328 patent to argue that "an inventor wishing to employ a blower to aid in drying in such a system would need to invent a method for preventing the contaminated cleaning fluid from reaching the blower system (or entering any conduits that might be used to channel air from the blower system to the shaving head) as it is agitated and splashed." (Second Nayfeh Report, at 19.) Dr. Nayfeh's argument rests upon analysis of the sole embodiment disclosed in the '328 patent, not anything that actually appears in the claims.

144. To be clear, Dr. Nayfeh is wrong in his assumption that the claimed "cradle structure" and the "drying device" must be next to each other in a unitary device. The parties have agreed that the preambles to all asserted claims of the '328 patent are

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not limitations. Dr. Nayfeh cannot use the words “cleaning device” to salvage claim 12.¹²

145. Moreover, neither claim 11 nor claim 12 require that contaminated cleaning fluid not reach the blower. As a practical matter, that would be a choice of design, not a matter of necessity. If cleaning fluid did reach a blower, it would simply evaporate.

146. Likewise, neither claim 11 nor claim 12 say anything about cleaning fluid being agitated and splashed. It may be the case that fluid is agitated in the “cradle structure” of Braun’s only disclosed embodiment, but Braun certainly did not incorporate that limitation into the claims.¹³ As a practical matter, in the McKinney and Maatz Patents, there is no agitation of the cleaning fluid, rendering Dr. Nayfeh’s opinion particularly irrelevant.

147. Dr. Nayfeh then argues that the louvered shutter system 149 in the ‘328 patent is inventive. (Second Nayfeh Report, at 19.) While I have not considered the question in detail, it may be that the louvered shutter system 149 was inventive. After reviewing the Markman briefing and the Markman Hearing transcript, however, I can locate no instance where Braun argued that the louvered shutter system 149 should be read into the claims. The louvered shutter system 149 certainly does not appear in claims

¹² Even if the preamble were a limitation, combining washing and drying functions into a single device is well known. One example is combination clothes washer-driers such as U.S. Patent No. 4,154,003. (Ex.40.)

¹³ Tellingly, for obviousness, Dr. Nayfeh assumes that the “cradle structure” must be filled with fluid, resulting in agitation and splashing. For written description, however, he says it would be clear to the ordinary artisan that the “cradle structure” need not retain fluid. It appears that Dr. Nayfeh does not have an consistent opinion on what a “cradle structure” is.

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11 and 12. It is thus my opinion that Dr. Nayfeh's discussion of the louvered shutter system 149 is irrelevant.

Claim 12

148. None of Dr. Nayfeh's attacks on particular prior art changes my opinion. I address each piece of prior art in order.

149. It remains my opinion that the Suzuki Patent combined with the McKiney or Maatz Patents renders claim 12 obvious. The Suzuki Patent includes a fan 21, heat exchanger 107, and associated ducting to form a "drying device" for the dishes after washing. (Ex. 32, at col. 2, l. 29.) The drying device of the Suzuki Patent operates much like the fan and heater in Mr. Smetana's memoranda discussed above. It is my opinion that claim 12 is obvious in light of the Maatz or McKiney Patents combined with the Suzuki Patent.

150. Dr. Nayfeh opines that the system of the Suzuki Patent "is not readily applicable to a system that is open to the atmosphere and considerable inventiveness would be required by one of ordinary skill in the art to arrive at the arrangement disclosed in the '328 Patent." (Second Nayfeh Report, at 19.) Dr. Nayfeh appears to be confusing what is disclosed in the specification with what Braun actually claimed. Unlike claim 14, claim 12 does not have any requirement that the "cradle structure" be open to the atmosphere, and it is inappropriate to read the limitation from claim 14 into claim 12. Moreover, removing any alleged complexity in the Suzuki Patent's dishwasher would have been routine engineering when applying the solution of the Suzuki Patent to a shaver cleaning system.

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151. The Davies Patent itself anticipates many claims of the '328 patent including claims 11 and 12. However, even if Braun were to argue that Davies does not itself anticipate, one of ordinary skill in the art would be motivated to combine the Davies Patent with either the McKiney Patent or the Maatz Patent. That is, for reasons expressed above, it would have been obvious to combine the blower (with an impeller) of the Davies Patent in the shaver cleaning systems of the McKiney and Maatz Patents.

152. Dr. Nayfeh argues that the blower from the Davies Patent could not be incorporated into the McKiney or Maatz Patents because the cleaning device in the Davies Patent has a lid and the devices in the McKiney and Maatz Patents do not. (Second Nayfeh Report, at 20.) The lid is a red herring as it is beneficial in the cleaning device of the Davies Patent, but not necessary. It remains my opinion that it would have required no more than routine engineering to use a blower to dry the tools in the McKiney or Maatz Patent cleaning systems.

153. Dr. Nayfeh also argues that the blower in the Davies Patent requires protection "if the cleaning fluid was agitated and caused to splash." As discussed above, this argument by Dr. Nayfeh is illogical and irrelevant as there is no agitation and splashing in the McKiney and Maatz Patents.

154. It also remains my opinion that the ultrasonic cleaning device at Braun combined with the Maatz or McKiney Patentss renders claim 12 obvious. Dr. Nayfeh argues that knowledge of the ultrasonic cleaning system "would not render obvious to one skilled in the art a method for incorporation of a blower into a system that cleans and dries the shaving head in a single station without disassembly from the shaver."

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155. Dr. Nayfeh again appears to be analyzing the specification, not the claims. First, the claims are clearly directed to an apparatus, not a method. Second, as discussed above, the preamble is not a limitation, and there is thus no requirement in the claims that the cleaning and drying functions must occur in a “single station.” Finally, as discussed at great length above, claim 12 does not forbid disassembly of the shaving head from the shaver. As Dr. Nayfeh has not addressed my opinion with reference to the actual claim language, my opinion regarding the ultrasonic cleaning device remains.

156. Finally, I have also reviewed U.S. Patent No. 4,480,394 (“Salas Patent”). The Salas Patent discloses a system in which the shaver head of a wet razor is inserted into opening. (Ex. 33, at col. 1, l. 49.) There is a fan and a heater underneath the opening. (Ex. 33, at FIG. 2.) The fan and heater direct warm air to the opening to dry the shaver head. (Ex. 33, at col. 2, ll. 35-38.) It remains my opinion that claim 12 would have been obvious over the Maatz Patent and the McKinley Patent in light of the Salas Patent.

157. Dr. Nayfeh’s only attack on the Salas Patent is to argue that “the Salas Patent does not teach any method for preventing contaminated cleaning fluid or even dust particles from falling onto the heating element and impeller described.”¹⁴ (Second Nayfeh Report, at 20.) Dr. Nayfeh is thus falling back to his irrelevant discussion of the louvered shutter system. As discussed above, the prevention of contaminated cleaning

¹⁴ Dr. Nayfeh implies that the Salas Patent is lacking because it is for a “safety or wet razor.” While I disagree with that implication, I have also reviewed Japanese Patent Application No. 05-057066 (“the Matsushita Application”), published on March 9, 1993. (Ex. 41.) The Matsushita Application discloses a station for an electric razor with an impeller for drying a wet electric razor. (Ex. 41, at Fig. 12.) The impeller of the Matsushita Application resembles the impeller of the Salas Patent. My opinions are the same for the Matsushita Application and the Salas Patent.

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fluid from reaching a blower is not essential or even claimed in the '328 patent.¹⁵ In the Salas Patent, for example, fluid would simply evaporate without fatal effects to the fan blades.

Claim 18

b. The McKinley, Maatz, or Loeffler Patents combined with the Zeischke Thesis or the idea of Helmut Kraus.

158. It also remains my opinion that claim 18 of the '328 patent is at least obvious. I address each of Dr. Nayfeh's opinions in order.

159. In his thesis, Mr. Zeischke proposed a cleaning system for shavers employing brushes and a vacuum. (Ex. 31, at 41.) Essentially, facial hair, dirt, etc. would be brushed and then sucked off the shaver head. In addition to the cleaning operation, Mr. Zeischke proposed that his cleaning station would be used to charge the shaving apparatus as well. (Ex. 31, at 41-42.) To that end, items #6 and #8 of the schematics at pages 41 and 42 respectively are listed as "park positions" for shaver charging. I understand a "park position" to be a holding position. The "park positions" constitute "brackets," as construed by the Court. To the ordinary artisan equipped with the Zeischke Thesis and any of the McKinley, Maatz, and Loeffler Patents, it would have been at least obvious to use "brackets" in the liquid cleaning systems of any of those patent.

160. Dr. Nayfeh argues that the "park positions" in the Zeischke Thesis are no brackets, as construed by the Court. The "park positions" that Mr. Zeischke discloses

¹⁵ The '328 patent does not say anything about dust either.

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clearly operate like a chuck. They necessarily hold the shaver in position during storage and charging as a bracket. In fact, the '328 patent explicitly notes that storage is a function of the disclosed "bracket." (Ex. 17, at col. 3, ll. 60-67.)

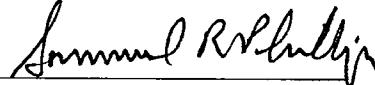
161. Dr. Nayfeh also argues that the Zeischke Thesis does not disclose "a bracket into which the shaver could be inserted during cleaning." The flaw in Dr. Nayfeh's argument is that claim 18 likewise does not require "a bracket into which the shaver could be inserted during cleaning." Once again, Dr. Nayfeh is attempting to read in limitations from the specification to argue non-existent differences between the claims and the prior art.

162. It remains my opinion that, if the ordinary artisan possessed the instruction of Mr. Kruas and any of the Maatz, McKinney, or Loeffler Patents, it would have been obvious to add a "bracket" similar to what is shown in Figure 1 of the '328 patent. Dr. Nayfeh states "[t]hat one skilled in the art should understand the need for an interlock does not render obvious its realization using a bracket incorporated into the system as claimed in the '328 patent." I disagree.

163. As discussed above, the easiest way to provide an interlock would be with a bracket with a built-in electrical switch. There are, of course, other ways to accomplish the interlocking function, as Dr. Nayfeh suggests. Dr. Nayfeh's opinion supports my argument that there are acceptable non-infringing alternatives to claim 18 of the '328 patent. It, however, does not undermine my opinion that claim 18 of the '328 patent is at least obvious.

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Dated: June 27, 2005


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